

ABSTRACT

A reduced complexity correlator that enables the re-use of the most complex portions of a correlator, namely the multiplier and adder. The correlator of the present invention is especially well-suited ~~suited~~ for use in CDMA and W-CDMA spread spectrum communication systems that require the use of numerous correlators in their operation. Multiple input samples, multiple codes and integration results are stored in shift registers and circularly shifted and clocked out at appropriate clock rates such that the multiplication and accumulation steps of the correlation process ~~[[is]]~~ are synchronized.